Application Serial No.: 10/589,654

Applicant: Philip KRAFT

Response to Office Action mailed: March 11, 2009

Response Filed: June 11, 2009

REMARKS

United States Serial No. 10/589,654 is a national stage application of International

Application No. PCT/CH2005/000137, filed March 7, 2005, which claims the benefit of

GB 0405723.8, filed March 15, 2004. The date of entry into the national stage of United

States Serial No. 10589.654 is August 16. 2006. A preliminary amendment was filed on

August 16, 2006 upon entering the national stage. The 371(e) date is April 13, 2007.

Claims 1-15 arc pending. An Office Action mailed March 11, 2009 has rejected

claims 1-15 under 35 U.S.C. §112, first paragraph, claim 3 under 35 U.S.C. §112, second

paragraph and 35 U.S.C. §101, and claim 6 under 35 U.S.C. §112, second paragraph. In

view of the amendments and the remarks set forth below, Applicant respectfully requests

that the rejections under 35 U.S.C. §101 and 35 U.S.C. §112, first and second paragraph

be withdrawn and that a notice of allowance be issued for claims 1-15.

35 U.S.C. §112, First Paragraph

Claims 1-15 are rejected under 35 U.S.C. §112, first paragraph because the

Specification allegedly does not enable a person of skill in the art to make or use the

invention commensurate in scope with the claims. Specifically, it is alleged that the

Specification does not provide enablement for any and all conceivable substituents other

than methyl substituents on the eyeloalkyl furans. On the basis of this allegation, the

Office Action requires that Applicant amend the claims to recite only those substituents for

which clear possession was had at the time of filing. Applicant respectfully traverses.

The subject matter of independent claims 1, 3, 4, 5 and 6 recite a compound of

formula (I), a eycloalkyl furan, wherein the R<sup>1</sup> substituent is methyl, ethyl, propyl or iso-

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propyl and the  $R^2$  substituent is a branched  $C_4 - C_7$  alkyl, with the proviso that the  $C_5$  alkyl

is neo-pentyl,  $C_5 - C_8$  cycloalkyl, or mono- or disubstituted  $C_5$  or  $C_6$  cycloalkyl. The fifth

position on the eveloalkyl furan structure has a methyl substituent.

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According to MPEP 2164, the enablement requirement under 35 U.S.C. §112, first paragraph requires that the specification describe how to make and how to use the invention. Thus, information within the specification must be sufficient to inform those skilled in the relevant art how to both make and use the claimed invention. Detailed procedures for making and using the invention may not be necessary if the description of the invention itself is sufficient to permit those skilled in the art to make and use the invention. MPEP 2164. As recited in *United States v. Telectronics, Inc.*, 857 F.2d 778, 785 (Fed. Cir. 1988), "The test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art without undue experimentation."

Page 2 of the Office Action alleges that the Specification does not provide enablement for any and all conceivable substituents other than methyl substituents on the cycloalkyl furans allegedly rendering the Specification not enabled or commensurate with the scope of the claims. The examples set forth in pages 4-12 of the Specification, however, describe in detail how to make various compounds comprising formula (I) as set forth in the claims. These compounds include 2-tert-Butyl-5-methyl-2-propyl-2,5dihydrofuran, 2-tert-Butyl-5-methyl-2-propyltetrahydrofuran, 2-tert-Butyl-2-isopropyl-5methyl-2,5-dihydrofuran, 2-tert-Butyl-2-isopropyl-5-methyltetrahydrofuran, 2-tert-Butyl-2ethyl-5-methyl-2.5-dihydrofuran, 2-tert-Butyl-2-ethyl-5-methyltetrahydrofuran, Butyl-2.5-dimethyl-2.5-dihydrofuran, 2-tert-Butyl-2.5-dimethyltetrahydrofuran, Dimethylcyclohexyl)-2,5-dimethyl-2,5-dihydrofuran, and 2-(3'.3'-Dimethylcyclohexyl)-2,5-dimethyltetrahydrofuran. These examples comprise compounds which include all of the R<sup>1</sup> substituents (methyl, ethyl, propyl, and isopropyl) and two R<sup>2</sup> substituents including a branched  $C_4 - C_7$  alkyl (tert-butyl) and a mono- or disubstituted  $C_5$  or  $C_6$  cycloalkyl (dimethylcyclohexyl).

Far from claiming "any and all conceivable substituents", the present claims recite only four different alkyl  $R^1$  substituents, each of which are exemplified for synthesis and fragrances properties. The claims further recite only three different classes of  $C_4$ -  $C_8$  alkyl

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R<sup>2</sup> substituents, each class having only four members, with two classes being exemplified

for synthesis and fragrance properties.

In In re Marzocchi, the board affirmed the rejection by the examiner that claims 6

and 12, directed to a 'polyethyleneamine' as an adhesion enhancer for the adhesion of vinyl

polymer resins to glass fibers, were not enabled because the term. 'polyethyleneamine'. was

"generic to a considerable number of compounds varying in the number of ethylene groups,

the number of amine groups and the relationship of the polyethylene groups to the amine

groups". In re Marzocchi, 439 F.2d 220, 223 (CCPA 1971). The Court of Customs and

Patent Appeals (CCPA), however, on appeal, reversed the decision by the board that the

Specification did not provide an enabling disclosure. According to the CCPA, appellants'

intended the term 'polyethyleneamine' to be generic and thus, intended that a considerable

number of compounds which fell within this term would be operative to produce enhanced

adhesion characteristics. Id. In this regard, the CCPA held,

"The only relevant concern of the Patent Office under these circumstances

should be over the truth of any such assertion. The first paragraph of §112

requires nothing more than objective enablement. How such a teaching is

set forth, either by the use of illustrative examples or by broad terminology.

is of no importance." *Id*.

This principle is set forth in MPEP § 2164.08 which states.

"As concerns the breadth of a claim relevant to enablement, the only

relevant concern should be whether the scope of enablement provided to

one skilled in the art by the disclosure is commensurate with the scope of

protection sought by the elaims."

In contrast to the application for *In re Marzocchi*, Applicant does not seek broad

protection of claims encompassing a considerable number of possible compounds, but

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rather a finite number of compounds, many of which are exemplified. Even if such broad claim protection were sought, the Patent Office is limited to analyzing whether the scope of the enablement is commensurate with the scope of the claims or challenging the truth of any assertion made by applicant.

The Specification provides support for how to make the claimed subject matter. In this regard, page 4, lines 23-29 of the Specification describes that the compounds of formula (I) may be prepared by the following reaction mechanism:

"Compounds of formula (I) may be prepared by the reaction of magnesium Grignard reagent of 3-butyn-2-ol, prepared according to a general procedure well known in the art, with a corresponding ketone (R<sup>1</sup>R<sup>2</sup>CO) resulting in an alkynediol. The alkynediol is then hydrogenated in the presence of a Lindlar catalyst. Subsequent cyclisation of the formed *cis*-configurated alkenediol in the presence of potassium hydrogensulfate results in the formation of the corresponding 5-methyl-2.5-dihydrofurane. Further compounds of formula (I) may be prepared by hydrogenation of the dihydorfuranes."

Thus, hydrogenation of the dihydrofurane. 5-methyl-2,5-dihydrofurane may be employed by a person of ordinary skill in the art to obtain various compounds according to formula (I) without undue experimentation. "Not everything necessary to practice the invention need be disclosed. In fact, what is well-known is best omitted." MPEP 2164.08 citing In re Buchner, 929 F.2d 660, 661 (Fed. Cir. 1991). Therefore, Applicant respectfully submits that the Specification properly enables a method of making the compounds of formula (I) as claimed.

In regard to the method of use inquiry for enablement, page 2, line 24 to page 4, line 8 of the Specification describes various methods of using the compounds of formula (I). These methods include using the compounds of formula (I) in a "base material" such

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as odorant molecules and/or in admixture with one or more ingredients or excipients conventionally used in conjunction with odorants in fragrance compositions. Specification Page 2, Lines 24-31. Various fragrance applications that the compounds of formula (I) may be used include perfumes. household products. laundry products. body care products and cosmetics. The amount of the compounds of formula (I) that may be employed in these applications vary depending upon the specific application and on the nature and quality of other odourant ingredients but typically range from 0.001 to 5 weight percent per application. Specification Page 3, Lines 22-27. Thus, despite the allegations made by the Office Action, the Specification as filed demonstrates a method of use for the compounds of formula (I).

According to the CCPA in *In re Marzocchi*, "...a specification disclosure which contains a teaching of the manner and process of making and using an invention in terms which correspond in scope to those used in describing and defining the subject matter sought to be patented must be taken as being in compliance with the enablement requirement of 35 U.S.C. §112, first paragraph, unless there is a reason to doubt the objective truth of the statements contained therein which must be relied on for enabling support. Assuming that sufficient reason for such doubt exits. a rejection for failure to teach how to make and/or use will be proper on that basis." *In re Marzocchi*, 439 F.2d 220, 224 (CCPA 1971). "In any event, it is incumbent upon the Patent Office, whenever a rejection on this basis is made, to explain why it doubts the truth or accuracy of any statement in a supporting disclosure and to back up assertions of its own with acceptable evidence or reasoning which is inconsistent with the contested statement." *Id.* This principal is further supported by *In re Bowen*, 492 F.2d 859, 862-863 (CCPA 1974). Thus. the Patent Office must, at a minimum, give reasons for any uncertainty of enablement.

In the case at hand, the Office Action does not provide any explanation backed up by any evidence or rationale as to why the present Specification does not enable a person of ordinary skill in the art to make or use the compounds of formula (I) as claimed without undue experimentation. Therefore, Applicant respectfully submits that the Office Action

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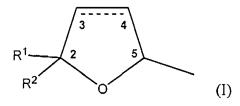
fails to present a prima facie case for lack of enablement under 35 U.S.C. §112. first paragraph.

Based on the remarks set forth above, Applicant respectfully requests that the rejection of claims 1-15 under 35 U.S.C. §112, first paragraph be withdrawn.

## 35 U.S.C. §101

Claim 3 is rejected under 35 U.S.C. §101 for allegedly claiming recitation of a use, without setting forth any steps involved in the process. Applicant has amended claim 3 to recite:

"A method for using a compound as <u>an</u> odorant, the method comprising, <u>using mixing</u> a compound of formula (I) <u>as odorant or a composition comprising a compound of formula (I) in a fragrance application</u>, wherein the compound of formula (I) <u>comprises the odorant is described by the chemical structure:</u>



wherein

R<sup>1</sup> is methyl, ethyl, propyl or iso-propyl;

 $R^2$  is a branched  $C_4$  -  $C_7$  alkyl,  $C_5$  -  $C_8$  cycloalkyl, or mono- or disubstituted  $C_5$  or  $C_6$  cycloalkyl; and

the bond between C-3 and C-4 is a single bond, or the dotted line together with the bond between C-3 and C-4 represents a double bond."

Claim 3 now recites the active, positive step of mixing a compound of formula (I) in a fragrance application. Support for this amendment is found on page 4, lines 1-15 of the Specification. Based on the amendment to claim 3 and the remarks set forth above,

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Applicant respectfully requests that the 35 U.S.C. §101 rejection of claim 3 be

withdrawn.

35 U.S.C. §112, Second Paragraph

Claim 6 is rejected under 35 U.S.C. §112, second paragraph for allegedly failing to

particularly point out and distinctly claim the subject matter which Applicant regards as the

invention. Specifically, it is alleged that claim 6 fails to recite what the compound of

formula (1) is incorporated into. In response, Applicant has amended claim 6 to recite "A

method of manufacturing a fragrance application, comprising the incorporation of a

compound of formula (I) into a base material...." as suggested on page 3 of the Office

Action. Based on this amendment to claim 6, Applicant respectfully requests that the 35

U.S.C. §112, second paragraph rejection be withdrawn.

In view of the amendments and remarks contained above, Applicant respectfully

requests reconsideration of the application, withdrawal of the 35 U.S.C. §112. first

paragraph rejection of claims 1-15, withdrawal of the 35 U.S.C. §101 rejection of claim 3,

withdrawal of the 35 U.S.C. §112, second paragraph rejection of claim 6, and requests that

a Formal Notice of Allowance be issued for claims 1-15. Should the Examiner have any

questions about the above remarks, the undersigned attorney would welcome a telephone

eall.

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Respectfully submitted.

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